

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

24247	590 09/30/2002		_						
TRASK BRITT				EXAMIN	ER				
P.O. BOX 2550				CLARK, SHEILA V					
SALT LAKE CIT	Y, UT 84110	•		ART UNIT	CLASS-SUBCLAS8				
			_	2815	257-701000				
	J.		D	ATE MAILED: 09/30/2002	•				
APPLICATION NO.	FILING DATE	FIRST NA	AMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
09/874,631	06/05/2001	Ow	Chee Moon	4368US (99-0959)	5108				
TITLE OF INVENTION: I	FLEXIBLE BALL GRID AR	RAY CHIP SCALE PACK	AGES AND METHODS OF FA	BRICATION					
APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE				
nonprovisional	NO	\$1280	\$300	\$1580	12/30/2002				

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



PART B - FEE(S) TRANSMITTAL



Commissioner for Patents Washington, D.C. 20231 (703)746-4000

<u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

Note: A certificate of mailing can only be used for domestic mailings of the Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 24247 TRASK BRITT P.O. BOX 2550 Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below. SALT LAKE CITY, UT 84110 (Depositor's name) (Signature (Date) FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE APPLICATION NO. 4368US (99-0959) 5108 09/874,631 06/05/2001 Ow Chee Moon TITLE OF INVENTION: FLEXIBLE BALL GRID ARRAY CHIP SCALE PACKAGES AND METHODS OF FABRICATION PUBLICATION FEE DATE DUE ISSUE FEE TOTAL FEE(S) DUE APPLN. TYPE SMALL ENTITY \$1280 12/30/2002 nonprovisional **EXAMINER** ART UNIT CLASS-SUBCLASS CLARK, SHEILA V 257-701000 2815 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a $\mbox{\ensuremath{\square}}$ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. single firm (having as a member a registered attorney or agent) and the names of up to 2 \square "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) ☐ individual ☐ corporation or other private group entity ☐ government Please check the appropriate assignee category or categories (will not be printed on the patent) 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): A check in the amount of the fee(s) is enclosed. ☐ Issue Fee ☐ Payment by credit card. Form PTO-2038 is attached. Publication Fee ☐ The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____(enclose an extra copy of this form). ☐ Advance Order - # of Copies Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Pepartment of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, D.C. 20231.

TRANSMIT THIS FORM WITH FEE(S)

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

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09/874,631	06/05/2001	Ow Chee Moon	4368US (99-0959) 5108				
24247	7590 09/30/2002		EXAMINER				
TRASK BRIT			CLARK, SHEILA V				
P.O. BOX 2550 SALT LAKE CI	TV 11T \$4110		ART UNIT	PAPER NUMBER			
SALT LAKE CI	11,0104110		2815				
			DATE MAIL ED: 00/20/2002				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)



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UNITED STATES		_	2815				
		D.	TE MAIL ED. 00/20/2002				

Notice of Possible Fee Increase on October 1, 2002

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2002, then the amount due may be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there may be an increase in fees effective on October 1, 2002. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Notice of Proposed Rulemaking. 67 Fed. Reg. 30634, 30636 (May 7, 2002). Although a change to the amount of the publication fee is not currently proposed for October 2002, if the issue fee or publication fee is to be paid on or after October 1, 2002, applicant should check the USPTO web site for the current fees before submitting the payment. The USPTO Internet address for the fee schedule is: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of any fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after October 1, 2002 (or mailed with a certificate of mailing on or after October 1, 2002), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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Application No.

09/874,631

Applicant(s)

Moon et al

AL AL CAULTURE	30,074,001						
Notice of Allowability	Examiner Sheila V.Clark	Art Unit 2815					
The MAILING DATE of this communication appear	rs on the cover sheet w	rith the correspondence	address				
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.							
1. X This communication is responsive to the communication filed 7-1-2002 and 8-1-2002							
2. X The allowed claim(s) is/are <u>1-33, 35, 36, 38-42, 52,</u>	and 53						
3. \square The drawings filed on are acc	epted by the Examiner.						
 4. X Acknowledgement is made of a claim for foreign price a) X All b) □ Some* c) □ None of the: 	ority under 35 U.S.C. §	119(a)-(d).					
1. X Certified copies of the priority documents have	been received.						
2. Certified copies of the priority documents have	been received in Appli	cation No	<u></u> •				
3. Copies of the certified copies of the priority do application from the International Bureau (P	CT Rule 17.2(a)).		tage				
*Certified copies not received:			•				
5. Acknowledgement is made of a claim for domestic p			nal application).				
(a) ☐ The translation of the foreign language provisions	I application has been r	eceived.					
6. Acknowledgement is made of a claim for domestic p	riority under 35 U.S.C.	§§ 120 and/or 121.					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONI EXTENDABLE.							
7. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give							
8. 🗵 CORRECTED DRAWINGS must be submitted.							
(a) \square including changes required by the Notice of Draft	sperson's Patent Drawi	ng Review (PTO-948) a	attached				
1) 🗆 hereto or 2) 🗀 to Paper No							
(b) $\overline{\mathbf{M}}$ including changes required by the proposed draw approved by the examiner.	ing correction filed	<i>Jul 9, 2001</i> , wh	nich has been				
(c) including changes required by the attached Examiner's Amendment/Comment or in the Office action of Paper No							
Identifying indicia such as the application number (see 37 CFR 1.3 each sheet. The drawings should be filed as a separate paper with							
9. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREME							
Attachment(s)							
1 Notice of References Cited (PTO-892)	_	ce of Informal Patent Appli					
3 Notice of Draftsperson's Patent Drawing Review (PTO-948)	\boldsymbol{c}	rview Summary (PTO-413)					
 Information Disclosure Statement(s) (PTO-1449), Paper No(s). Examiner's Comment Regarding Requirement for Deposit of Bio 	_	miner's Amendment/Comm niner's Statement of Reaso					
Material	nogical o 🗀 Exai	milier s Statement of Reas(ons for Allowance				
9 Other							

Application/Control Number: 09/874, 631

Art Unit: 2815

andt 9#12
Page 2

1. An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312.

To ensure consideration of such an amendment, it MUST be submitted no later than the payment

of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr.

Joseph Walkowski on September 26, 2002.

2. The application has been amended as follows:

Claims 34, 50, 51 and nonelected claims 43-49 have been canceled.

These claims have been canceled so that this application may be passed to issue and discusssed

with Mr. Walkowski.

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Examiner S.V. Clark whose telephone number is (703) 308-4924.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Eddie Lee, can be reached on (703) 308-1690. The fax phone number for the organization where

this application or proceeding is assigned is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-0956.

September 26, 2002

1. blak